

**VIRGINIA POLLUTION ABATEMENT
PERMIT APPLICATION**



**FORM A
ALL APPLICANTS**

Department of Environmental Quality

FORM A
INSTRUCTIONS
INFORMATION REQUIRED FOR ALL VPA PERMIT PROPOSALS

All applications submitted for a VPA Permit shall include this form.

- ✓ 1. **FACILITY NAME AND ADDRESS:** The name of the facility managing the waste. Both the mailing address, county, and physical location should be included.
- ✓ 2. **LEGAL NAME OF OWNER:** The legal name of the owner or the company making application for the VPA Permit.
- ✓ 3. **FACILITY CONTACT:** The name, title, address, and telephone number of the individual whom DEQ's staff should contact regarding this application should be furnished. If same as owner, write SAME.
- ✓ 4. **EXISTING PERMITS:** List all environmentally-related permits issued to the facility by listing the issuing agency and permit number. Include an existing VPA permit if your facility has one.
- ✓ 5. **NATURE OF BUSINESS:** Provide a general statement of the type of business conducted at the facility. Industrial facilities are requested to provide applicable Standard Industrial Classification (SIC) Codes. SIC Codes may be obtained from Standard Industrial Classification Manual 1987, published by the Executive Office at the President's Office of Management and Budget. The manual can be found in libraries and each office of the Department of Environmental Quality.
- ✓ 6. **TYPE OF WASTE:** Indicate type of waste(s) handled and whether the facilities are either existing or proposed, or both. Note that the type of waste determines which other VPA application forms must be completed.
- ✓ 7. **GENERAL LOCATION MAP:** The purpose of the map is to allow the DEQ staff to readily find the establishment. This map is to show the general location of the establishment. Applicants should use county or United States Geological Survey quadrangle maps. DEQ's RO can provide information for obtaining such maps.
- ✓ 8. The application must be signed in accordance with DEQ's Permit Regulation (VR680-14-01):
 - ✓ a. **FOR A CORPORATION:** by a responsible corporate official. For purposes of this section, a responsible corporate official means (1) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation, or (2) the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25,000,000 (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
 - b. **FOR A MUNICIPALITY, STATE, FEDERAL OR OTHER PUBLIC AGENCY,** by either a principal executive officer or ranking elected official. (A principal executive officer of a Federal, Municipal, or State agency includes the chief executive officer of the agency or head executive officer having responsibility for the overall operation of a principal geographic unit of the agency).
 - c. **FOR A PARTNERSHIP OR SOLE PROPRIETORSHIP,** by a general partner or the proprietor, respectively.

VIRGINIA POLLUTION ABATEMENT PERMIT APPLICATION
FORM A
ALL APPLICANTS

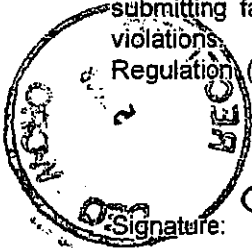
1. Facility Name: Chesapeake Custom Chemical Corp.
County and Location: Henry County
Address: 126 Reservoir Road
Ridgeway Virginia 24148
2. Legal Name of Owner: Chesapeake Custom Chemical Corp.
Address: 126 Reservoir Road, Po Box 615
Telephone Number: 276-956-3145
3. Facility Contact: J. Allen French
Title: President
Address: (if different) _____
Telephone Number: Cell 910-617-3084 Office 276-956-3145
4. Existing permits (e.g., IWND, VPA, NPDES, RCRA, UIC, PSD; other):
- | Agency | Permit Type | Number |
|--------|--------------|------------|
| DEQ | Air | 30792 |
| DEQ | Storm water | VAR 051640 |
| Agency | Ground water | VPA 02001 |
| Agency | Permit Type | Number |
| | | Renewal |
5. Nature of Business: Manufacture of Biodiesel Fuel, Crude
Glycerol & Adhesive Resin Manufacturing
SIC Code(s): 2869
6. Type of Waste:
(check blank as appropriate)
- | | Proposed | Existing |
|--|----------|-------------------------------------|
| Animal Waste (complete Form B) | _____ | _____ |
| Industrial Waste (complete Form C) | _____ | <input checked="" type="checkbox"/> |
| Sewage Effluent
(complete Form D, Part I) | _____ | _____ |
| Sewage Sludge Infrequent
Land Application
(complete Form D, Part II) | _____ | _____ |
| Sewage Sludge Frequent
Land Application
(complete Form D, Part III) | _____ | _____ |

7. General Location Map:

Provide a general location map which clearly identifies the location of the facility.

Attached

I certify under penalty of law that this document and all information submitted were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is to the best of my knowledge true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations. I further certify that I am an authorized signatory as specified in the Permit Regulation (VR680-14-01).



Signature:

J. Allen French

Date:

6/21/08

Printed Name:

J. Allen French

Title:

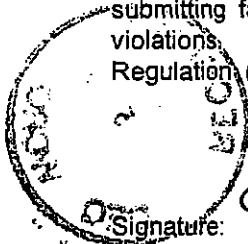
President

7. General Location Map:

Provide a general location map which clearly identifies the location of the facility.

Attached

I certify under penalty of law that this document and all information submitted were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is to the best of my knowledge true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations. I further certify that I am an authorized signatory as specified in the Permit Regulation (VR680-14-01).



Signature:

J. Allen French

Date:

6/21/08

Printed Name:

J. Allen French

Title:

President

**VIRGINIA POLLUTION ABATEMENT
PERMIT APPLICATION**



**FORM C
INDUSTRIAL WASTE**

Department of Environmental Quality

VIRGINIA POLLUTION ABATEMENT PERMIT APPLICATION

FORM C

INDUSTRIAL WASTE



PART C-I General Information

1. Facility Name: Chesapeake Custom Chemical Corp.

2. Source(s) of Waste

- a. *Provide a narrative which explains your facility operations and how wastes are produced.*

See Attachment A

- b. *Attach a line drawing of the facility in block diagram for showing the manufacturing or processing operations and all points where wastes are produced.*

- c. *Explain how sewage from employees is handled (i.e., septic tank/drainfield, sanitary sewer etc.):*

Septic tank drainfield

d. Operational Parameters

Maximum hours/day of operation:	<u>24</u>
Average hours/day of operation:	<u>18</u>
Days/week of operation:	<u>6</u>
Specific months of operation:	<u>12</u>

we currently run a 7:00 AM to 3 PM shift
+ a 3:00 PM to 11:00 PM shift, we currently run
3. Non-Hazardous Declaration every other Saturday.

a. Statement for Plant Operations

Is any part of the manufacturing operations, plant processes or waste treatment facilities at these plant facilities under the purview of the "Virginia Hazardous Waste Management Regulations" or the "Virginia Solid Waste Management Regulations?" ☒ Yes ☐ No.

If Yes, please provide a brief explanation of the type of permit or requirements that apply.

In January 03 2006 a generators special
waste permit application was submitted and
approved to landfill magnesium filter cake.
Material is handled and land filled
by First Piedmont Corp.

- b. For waste to be land applied, a responsible person, as defined by VR680-14-01, must sign the following statement.

I certify that the waste described in this application is non-hazardous and not regulated under the Resource Conservation and Recovery Act.

G. Allen French
(Signature of Owner)

Date 6/21/08

4. Waste Characterization

- a. Wastewater - Provide at least one analysis for each parameter. Upon review, additional analyses may be required by DEQ.

no wastewater generated by the facility.

<u>Parameter</u>	<u>Concentration</u>	
Flow to treatment	0	MGD
Flow to storage	0	MGD
Vol. to treatment	0	MG
Vol. to storage	0	MG
Vol. Land applied	0	MG/year
BOD ₅		mg/l
COD		mg/l
TOC		mg/l
TSS		mg/l
Percent Solids		%
pH		S.U.
Alkalinity as CaCO ₃		mg/l
Nitrogen, (Nitrate)		mg/l
Nitrogen, (Ammonium)		mg/l
Nitrogen, (Total Kjeldahl)		mg/l
Phosphorus, (Total)		mg/l
Potassium, (Total)		mg/l
Sodium		mg/l



- b. Sludge - Provide at least one analysis for each parameter. Upon review, additional analyses may be required by DEQ.

no sludge generated by the facility

<u>Parameter</u>	<u>Concentration*</u>	
Percent Solids		%
Volatile Solids		%
pH		S.U.
Alkalinity as CaCO ₃ **		mg/kg
Nitrogen (Nitrate)		mg/kg
Nitrogen (Ammonium)		mg/kg
Nitrogen (Total Kjeldahl)		mg/kg
Phosphorous (Total)		mg/kg
Potassium (Total)		mg/kg
Lead		mg/kg
Cadmium		mg/kg
Copper		mg/kg
Nickel		mg/kg
Zinc		mg/kg

* Unless otherwise noted, report results on dry weight basis.

** Lime treated sludges (10% or more lime by dry weight) should be analyzed for percent CaCO₃.

VPA FORM C INDUSTRIAL WASTE INSTRUCTIONS

This form is to be completed by applicants requesting a VPA permit for industrial waste management systems. All industrial applicants must submit Part I of Form C. Part II must be submitted by applicants who use land application treatment systems for wastewater or sludge. In addition, certain industrial categories may be required to submit more information than this application requests. A preliminary meeting with the local DEQ Regional Office is recommended prior to completing any part of Form C.

PART C-I

✓ **FACILITY NAME:** Name as given on Form A line 1.

2. SOURCE OF WASTE:

✓ a. The applicant should supply a short description of the specific manufacturing operation at the facility.

✓ b. A line drawing, in block diagram form, is to be furnished. Show the various steps or units of the manufacturing or processing operations, all points where industrial wastes or other wastes are produced, the volume of wastes generated at each location, and their method of disposal. List raw materials and show the points where they enter the process. Finished products and the points where they emerge from the process are also to be shown.

✓ c. Describe how sewage from employees is handled. (i.e., does it go to a septic tank/drainfield, local sanitary sewerage system, etc.).

✓ d. In the space provided, show the maximum and average hours/day and days/week of operation and the specific months of operation.

✓ **3. NON-HAZARDOUS DECLARATION:** All industrial facilities must sign this declaration in order for the application to be complete. The signature must be in accordance with DEQ's Permit Regulation. The applicant should evaluate waste characteristics as required by Federal and State Regulations to determine if it is hazardous or non-hazardous (TCLP or other tests required by Department of Environmental Quality). If identified as hazardous, it should be processed as a hazardous waste according to the requirements of RCRA and State Regulations through the Department of Environmental Quality.

✓ **4. WASTE CHARACTERIZATION:** Waste characterization applies to waste being removed from the waste management system. For land application operations, analysis should be conducted on waste to be land applied. For proposed operations, estimates may be used based on the characteristics of similar facilities. Provide the references to identify the similar facility.

*no waste water or
sludge*

The applicant is required to test for all parameters listed in 4.a. and/or 4.b., whichever group of parameters are appropriate. Should you feel that any of the required parameters are not appropriate for your operation, you may request in writing that the testing requirement be waived. The letter should accompany the VPA application when a submission is made. It must be pointed out that your waiver request should be reviewed with a DEQ Regional Office permit writer before the waiver is requested. Enough information must be available on characteristics of the waste to support issuance of the VPA permit. If the waiver request is denied, then the entire application package will be returned incomplete.

DEQ places great importance on waste characterization. In Item 4.c., the applicant is requested to indicate if a parameter (not listed in 4.a. and/or 4.b.) is believed present or absent. If believed present, at least one analysis should be conducted. If the application is for both wastewater and sludge, make an additional copy of Part 4.c and answer for both.

If the application is for a waste management system that uses recycling, the waste characterization may be substituted by supporting documentation, for example, MSDS sheets.

5. **POLLUTANT MANAGEMENT FACILITIES:** Provide a detailed flow chart in block diagram form showing the interrelation of all the treatment facilities. Include handling, treatment storage and disposal units in this chart. Recycle systems are also to be included for this application requirement.

no treatment required

OPERATIONS: Using the above flow diagram as a reference, describe the pollutant management operation of each unit and the system as a whole.

6. Please indicate the type and number of waste treatment units or storage facilities at your operation. Please also indicate if the facility is proposed or existing.

7. All waste treatment, storage facilities and land application sites must be approved by the Department of Environmental Quality. If the existing facilities have not been approved, it will be necessary to submit a conceptual engineering report. It is also suggested that you discuss this matter with a representative of a DEQ Regional Office before submitting the report.

8. If previously approved facilities have been expanded, a conceptual engineering report must be submitted to DEQ for approval for the expanded unit(s) as required by the application and instructions.

9. **CONCEPTUAL DESIGN:** Waste management facilities require technical expertise in the planning, design and construction phases of the project to insure that 1) the facility will meet the operational needs of the owner, 2) the facility is

structurally sound and 3) the treatment system meets all necessary regulatory requirements. Detailed discussion of plans and specifications for the structural stability of the treatment works are beyond the scope of these instructions. Such expertise is available to owners through private engineering firms and Virginia universities. It should be emphasized that the structural integrity of all facilities is the responsibility of the owner.

Applicants should provide design information and/or calculations such as capacities, construction materials, flow directions, loading rates and water balance figures for the waste management structure and any associated piping and pumps. The following areas should be considered in preparing the conceptual design.

STORAGE/TREATMENT FACILITY CAPACITY: Facilities must be designed and operated to prevent point source discharge of pollutants to State waters except in the case of a 25 year-24 hour or greater storm event.

DEQ recommends the storage capacity be sufficient to ensure that wastes do not have to be applied to the land when the ground is ice or snow covered, too wet or during periods when fields are unavailable for waste utilization because of the cropping plan. A minimum 60-day storage capacity for wastewater or sludge is recommended to be designed into all pollution abatement facilities.

DEQ suggests that the storage facilities have a 2 ft. freeboard at all times.

GROUND WATER PROTECTION: Storage facilities and treatment works must be designed and operated to ensure compliance with the provisions of the Water Quality Standards for ground water. DEQ suggests that liners be installed in earthen storage facilities located in rapidly permeable soils (> 2.0 in/hr) or where Karst geology or shallow and fractured rock is encountered.

The Department of Environmental Quality requires lagoon liners to have a maximum coefficient of permeability of 1×10^{-6} cm/sec. It is recommended that soils used as liners be capable of achieving a maximum coefficient of permeability of 1×10^{-7} cm/sec or less. Total soil liner thickness should be one foot after compaction of two separate lifts of equal thickness.

Synthetic liners are preferred and should be a minimum of 20 mil. thickness, appropriate for the type wastewater, and be appropriately protected from puncture both below and above the liner. The liner should clearly be installed according to manufacturers specifications. Such specifications should also include recommendations, if any, for periodically inspecting the integrity of the liner.

A 2-foot separation distance between the facility bottom and the seasonal high water table is recommended.

WASTE VOLUMES: Accurate estimates of waste volumes are necessary to calculate properly sized waste holding and treatment facilities. Wastewater from contaminated storm water inputs to the pollution abatement facilities must also be considered, i.e., rainfall on to the facility surface and runoff from the surrounding roof and guttering systems.

10. **FLOOD POTENTIAL:** DEQ recommends that waste storage structures not be located on a floodplain unless protected from inundation or damage by a 100-year frequency flood event. Consult your local county zoning/planning office for information on flood plain locations and flood protection options. Such information may be available upon request.

11. Storm water runoff may be generated by parking lots, plant roofs or by the surrounding terrain. Proposed or existing facilities should be designed to contain the runoff from a 25 year 24 hour rain storm.

12. **LAND APPLICATION OF WASTES:** Facilities which land apply waste must complete Part C-II.

PART C-II

If instructions beyond those in the form are needed, contact the DEQ Regional Office for assistance.

Attachment A

Virginia Pollution Abatement Permit Application

Narrative explaining current operations and how wastes are produced

For the purpose of renewing VPA – Permit No. VPA02001

It is noted the permit expires December 22, 2008.

Currently the facility is manufacturing Methyl Esters and Crude Glycerin.

It is our intention and the facility has been previously permitted by Virginia DEQ to additionally manufacture Formaldehyde Based Adhesive Resins. In addition the facility is equipped to manufacture other products from Formaldehyde. The manufacture of Formaldehyde based products may generate liquid regulated wastes. Wastes of this type were generated at this facility for many years and were handled under a pump and haul permit. Prior to manufacturing any Formaldehyde based product we will obtain approval from all appropriate regulatory agencies. To date we have not manufactured any Formaldehyde based products nor have we brought on site in more than experimental quantities any of the required chemical raw materials for this type production.

Methyl Ester and Crude Glycerin are produced in a 10,000 gallon reactor.

The primary raw material used to manufacture these products comes from a variety of Non-Regulated Triglycerides such as:

Soy Bean Oil, Animal Fats, Corn Oil, Algae Oil, Seashore Mallow, Canola Oil, Mustard Seed Oil, Camelina Oil, Used Vegetable Oils, Jatropha Oil and Grease Trap Oil.

To date the CCC facility has run exclusively Soy Bean Oil and or Refined Animal Fats. Our process is a batch operation and we have the technical expertise to run any of the above Triglyceride materials.

The Triglyceride raw materials used to manufacture our products are stored in Tank #14 located in Containment #3. While we have not yet done so Tank #14 also located in Containment # 3 is available for triglyceride storage and or could be used for Formaldehyde storage. Triglycerides arrive in bulk tanker trucks.

The other raw materials used to manufacture these products are Methanol and Sodium Methylate.

Methanol arrives in bulk tanker trucks and is stored in Tank #11 located in Containment #1 or in Tank #12 located in Containment #2.

Narrative explaining current operations and how wastes are produced

Sodium Methylate solution arrives and is stored in either 55 gallon drums or in 275 gallon totes. This product is currently stored in the main plant warehouse. It is noted that this product is available in bulk and that we may in the future purchase it in that form and designate a bulk storage tank for that purpose.

No wastes are generated in unloading Triglycerides or Methanol we utilize our own pumps, lines and dedicated hoses such that we will be able to completely empty the raw material from the tanker delivering it prior to disconnecting. Any drips generated during the disconnecting process are caught in a bucket and returned to the process.

Sodium Methylate is pumped from the drums or totes it arrives in directly into the process via a dedicated line and pump. The container is completely emptied and is returned to the supplier for reuse.

Crude Glycerin is neutralized with an acid. Sulfuric, Hydrochloric, Phosphoric, Citric or Acetic will work. To date we have used 35% Hydrochloric Acid. Hydrochloric Acid comes in 55 gallon drums. We store them in the main warehouse.

Hydrochloric Acid is pumped from the drums it arrives in directly into the process via a dedicated line and pump. The container is completely emptied and is returned to the supplier for reuse.

Triglyceride, Methanol, and Sodium Methylate are reacted to form a mixture of Fatty Acid Esters (Biodiesel Fuel) and Glycerol. The reaction is conducted under precise conditions of heat and time in excess Methanol.

Upon completion of the reaction phase the contents of the reactor are allowed to settle. The reaction products separate into two phases. The bottom phase, Glycerol / Methanol, is pumped to storage tanks #8 or #9 both located in Containment #1.

Currently this material is held until a reactor is empty and then pumped back into the reactor. Methanol is separated from the Glycerol / Methanol phase under heat and vacuum. Methanol vapors are condensed and recovered. The recovered Methanol flows to Storage Tank #12 located in Containment #2. This recovered Methanol is reused in subsequent production.

Crude Glycerol is diluted with 20% water and is neutralized with Hydrochloric Acid it is then pumped from the reactor to Storage Tank #1, #3 or #4. The Non-Hazardous Crude Glycerol product is then sold to a variety of customers.

The top phase, Methyl Ester / Methanol phase after the bottom phase has been pumped to storage is heated under vacuum to remove and recover excess methanol.

Narrative explaining current operations and how wastes are produced

The recovered Methanol is pumped to storage Tank #12 located in Containment #2. This recovered Methanol is reused in subsequent production.

The Methyl Ester phase is then allowed to settle for a number of hours. A small amount of demethylated Glycerol is decanted into storage totes. After a number of weeks Methyl Ester is pumped from the top of the totes back into the process. The remaining liquid, Non - Hazardous Glycerol in the totes is pumped into Storage Tank #1, #3 or #4 for sale as Crude Glycerin. These totes are stored in the contained drum storage area adjacent to Fire Water Reserve. Any spills, leaks or drips from these totes is contained in one of two existing waste basins formerly used for pump and haul accumulation of plant waste.

Non - Hazardous impurities in the Methyl Ester consisting of Free Fatty Acid Soap, traces of Sodium Hydroxides and Free Glycerol are removed by adding Magnesium Silicate powder, Magnesol Dry Biodiesel Purification Wash. The powder and absorbed Non - Hazardous impurities are removed in a filter press as a cake. The Non - Hazardous filter cake is collected and disposed of in an approved landfill owned and operated by First Piedmont. Filter cake is stored in a lined bulk container supplied by First Piedmont.

It should be noted that Magnesol has been use for many years to remove impurities from fats, and oils and is used to purify oils that are consumed in food as well as to purify Methyl Esters.

Magnesol comes in a fifty pound bags. Bags are stored in the main warehouse. Empty bags of this Non - Hazardous material are disposed of in the plant trash dumpster.

Finished product is pumped through a filter press into one of two Biodiesel Storage Tanks, Tank #13 located in Containment #2 or Tank #7 located in Containment #1. To date we have only sold the product in bulk but may at some time drum or tote the product. Currently finished product is filtered and loaded onto bulk tanker trucks which are loaded while on the truck scale.

Any drips associated with loading or processing are absorbed in an oil absorbent material and disposed of in an approved manner.

It should be noted that many other producers of Methyl Ester Fuel employ large quantities of wash water in the purification of their product. We do not wash our product with water; consequently we do not generate waste water.

Our Crude Glycerin requires a significant amount of dilution water. This water is obtained from existing storage pits, cooling tower blow down, rain water collected in containments through out the facility and from well water.

Narrative explaining current operations and how wastes are produced

A number of minor additives are used in the processing of our Methyl Ester Product as follows:

An oxidation stabilizer, Innospec Biostable 403, is added in part per million quantities. This material is stored in a tote in the main warehouse.

Tax paid diesel fuel is added at 0.1% by volume when the product is sold as B-99.9 % Biodiesel. The Tax Paid Diesel is stored in a tote in the main warehouse.

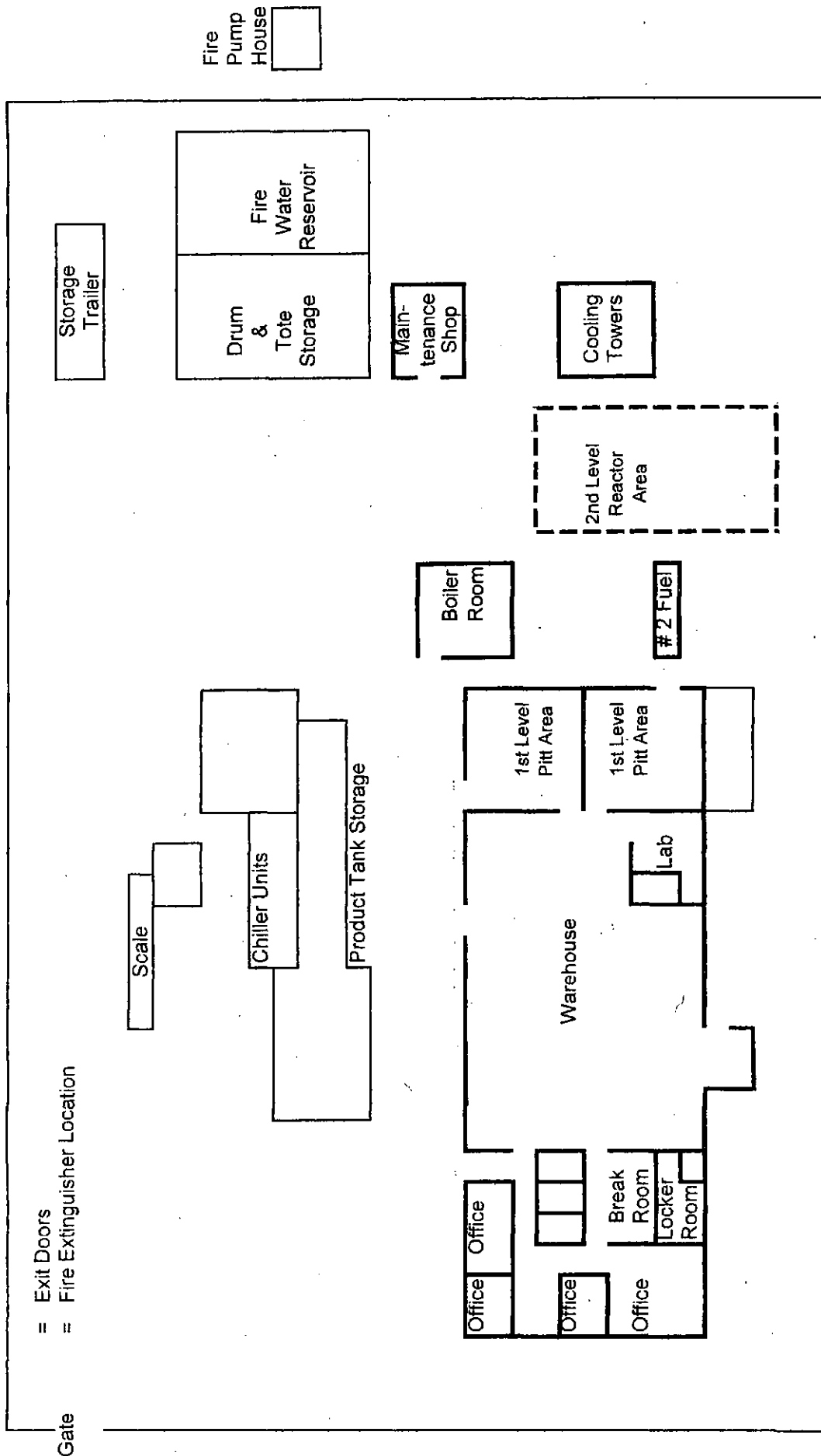
A winter additive to improve the pour point of the fuel in cold weather, Innospec Bio Winter Flow PPD-1, is added in part per million quantities during very cold times of the year. This material is stored in the main warehouse in a 55 gallon drum.

It should be finally noted that Methyl Ester and Crude Glycerol are both Non – Toxic, Biodegradable and ship as Non – Hazardous Compounds.

[illegible]

0.170/20

Chesapeake Custom Chemical Evacuation Site Plan



Norfolk & Southern Railroad

Highway 220 South

4. Waste Characterization

- a. Wastewater - Provide at least one analysis for each parameter. Upon review, additional analyses may be required by DEQ.

no waste water

<u>Parameter</u>	<u>Concentration</u>	
Flow to treatment	_____	MGD
Flow to storage	_____	MGD
Vol. to treatment	_____	MG
Vol. to storage	_____	MG
Vol. Land applied	_____	MG/year
BOD ₅	_____	mg/l
COD	_____	mg/l
TOC	_____	mg/l
TSS	_____	mg/l
Percent Solids	_____	%
pH	_____	S.U.
Alkalinity as CaCO ₃	_____	mg/l
Nitrogen, (Nitrate)	_____	mg/l
Nitrogen, (Ammonium)	_____	mg/l
Nitrogen, (Total Kjeldahl)	_____	mg/l
Phosphorus, (Total)	_____	mg/l
Potassium, (Total)	_____	mg/l
Sodium	_____	mg/l

- b. Sludge - Provide at least one analysis for each parameter. Upon review, additional analyses may be required by DEQ.

no sludge

<u>Parameter</u>	<u>Concentration*</u>	
Percent Solids	_____	%
Volatile Solids	_____	%
pH	_____	S.U.
Alkalinity as CaCO ₃ **	_____	mg/kg
Nitrogen (Nitrate)	_____	mg/kg
Nitrogen (Ammonium)	_____	mg/kg
Nitrogen (Total Kjeldahl)	_____	mg/kg
Phosphorous (Total)	_____	mg/kg
Potassium (Total)	_____	mg/kg
Lead	_____	mg/kg
Cadmium	_____	mg/kg
Copper	_____	mg/kg
Nickel	_____	mg/kg
Zinc	_____	mg/kg

* Unless otherwise noted, report results on dry weight basis.

** Lime treated sludges (10% or more lime by dry weight) should be analyzed for percent CaCO₃.

4. Waste Characterization

- a. Wastewater - Provide at least one analysis for each parameter. Upon review, additional analyses may be required by DEQ.

no waste water

<u>Parameter</u>	<u>Concentration</u>	
Flow to treatment	_____	MGD
Flow to storage	_____	MGD
Vol. to treatment	_____	MG
Vol. to storage	_____	MG
Vol. Land applied	_____	MG/year
BOD ₅	_____	mg/l
COD	_____	mg/l
TOC	_____	mg/l
TSS	_____	mg/l
Percent Solids	_____	%
pH	_____	S.U.
Alkalinity as CaCO ₃	_____	mg/l
Nitrogen, (Nitrate)	_____	mg/l
Nitrogen, (Ammonium)	_____	mg/l
Nitrogen, (Total Kjeldahl)	_____	mg/l
Phosphorus, (Total)	_____	mg/l
Potassium, (Total)	_____	mg/l
Sodium	_____	mg/l

- b. Sludge - Provide at least one analysis for each parameter. Upon review, additional analyses may be required by DEQ.

no Sludge

<u>Parameter</u>	<u>Concentration*</u>	
Percent Solids	_____	%
Volatile Solids	_____	%
pH	_____	S.U.
Alkalinity as CaCO ₃ **	_____	mg/kg
Nitrogen (Nitrate)	_____	mg/kg
Nitrogen (Ammonium)	_____	mg/kg
Nitrogen (Total Kjeldahl)	_____	mg/kg
Phosphorous (Total)	_____	mg/kg
Potassium (Total)	_____	mg/kg
Lead	_____	mg/kg
Cadmium	_____	mg/kg
Copper	_____	mg/kg
Nickel	_____	mg/kg
Zinc	_____	mg/kg

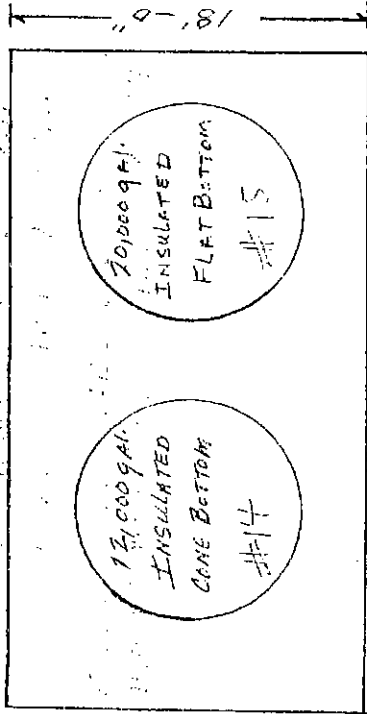
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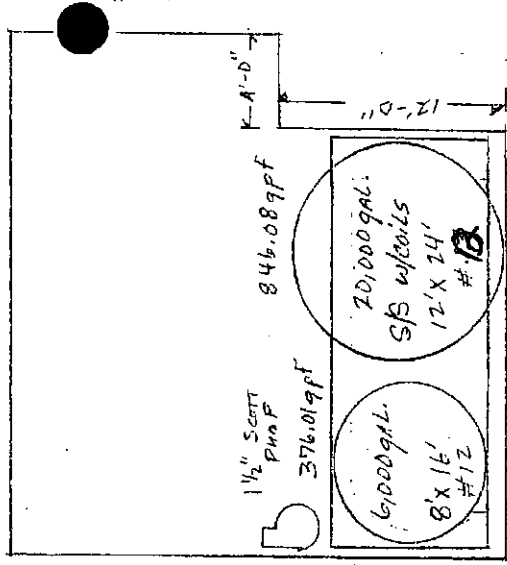
TANK FARM

CONTAINMENT #3 BACK SIDE PLT.

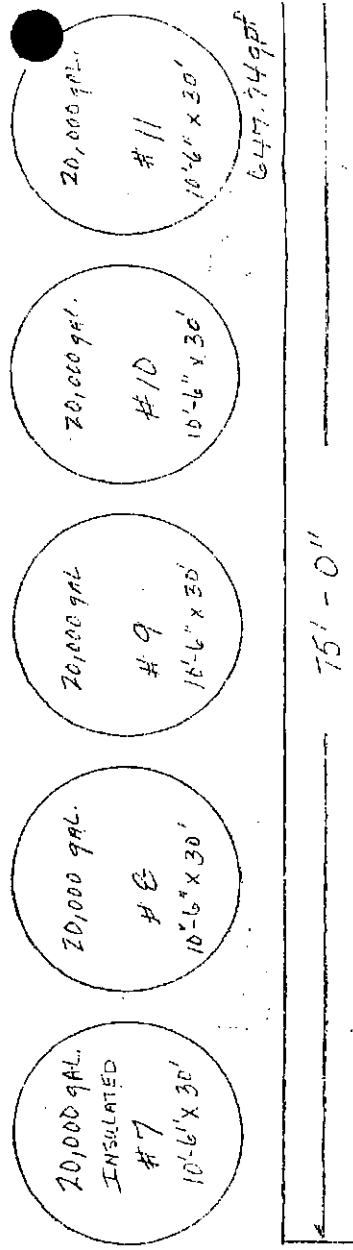
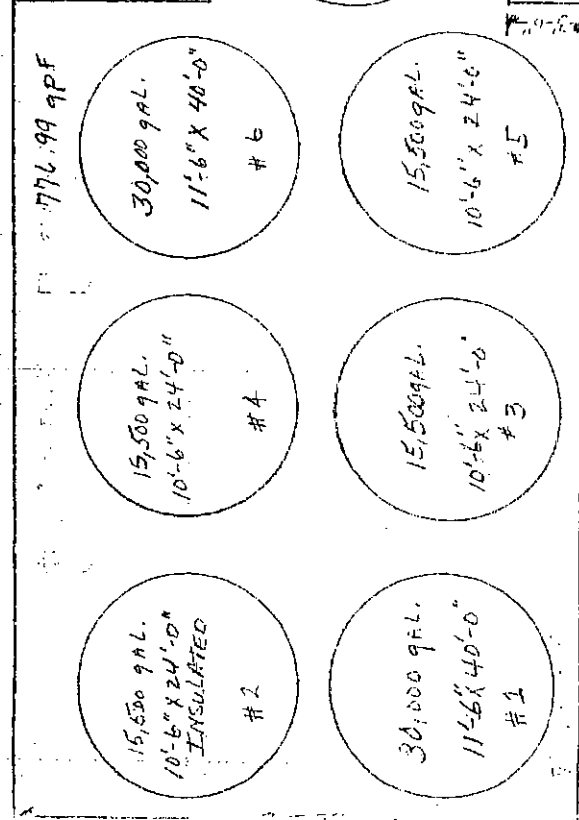
35'-0"



CONTAINMENT #2
BESIDE SCARLE HOUSE

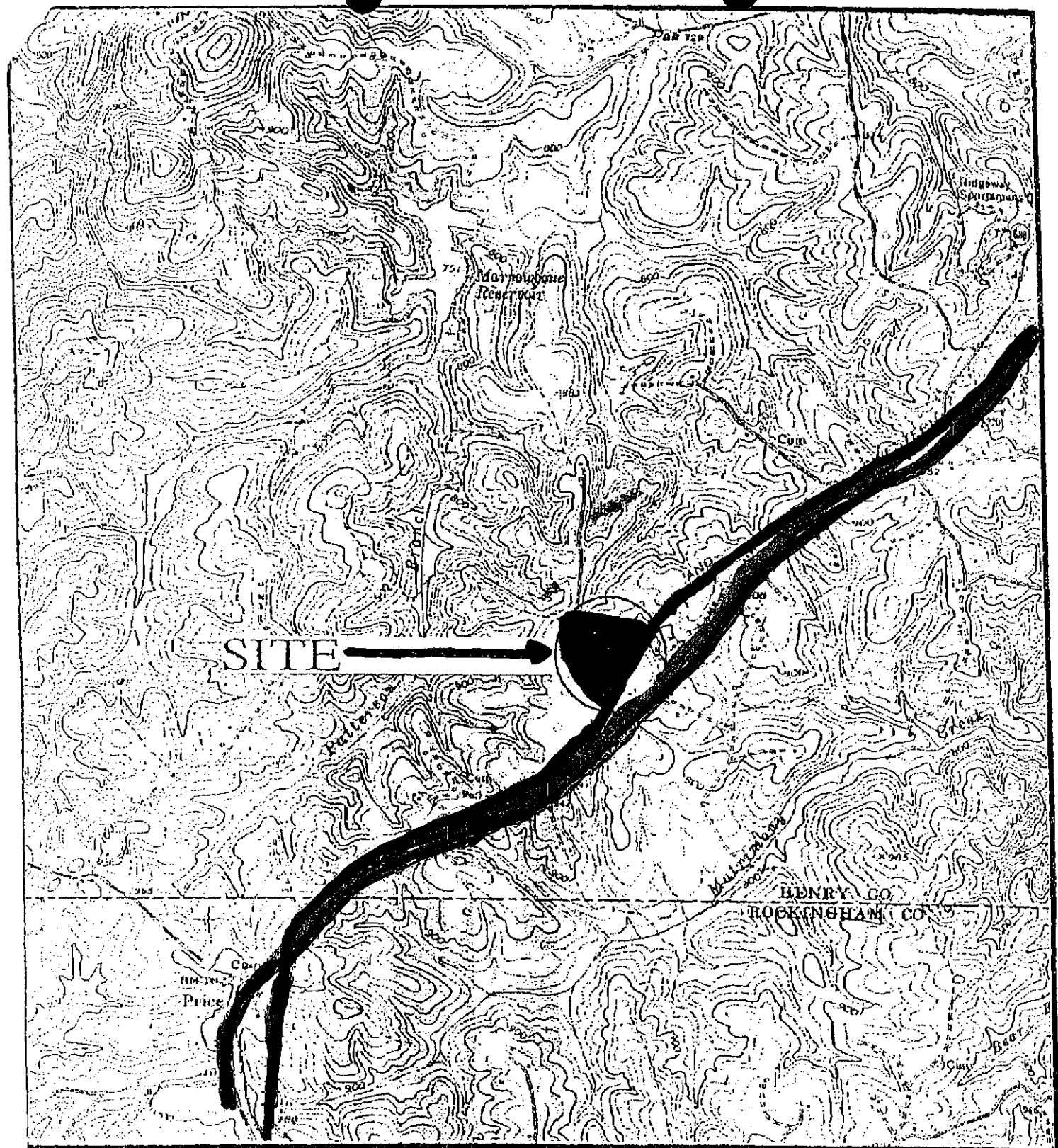


12'-0"



75'-0"

CONTAINMENT #4
FRONT SIDE PLT.



SOURCE:

USGS TOPOGRAPHIC MAP
PRICE, VA. - NC QUADRANGLE
DATED 1964 AND
PHOTOINSPECTED 1982
SCALE: 1" = 2000'

ECS LTD
ENGINEERING
CONSULTING
SERVICES LTD

FIGURE 1

SITE LOCATION MAP

126 RESERVOIR ROAD
RIDGEWAY, VA

ECS PROJECT G-5400

Site = Green
Norfolk Southern Railroad = Blue
Highway 270 = Red

9/26/06

Chesapeake Custom Chemical Storage Tank Key

<u>Tank #</u>	<u>Contents</u>
1	No current use
2	No current use
3	Glycerol / Methanol Storage
4	No current use
5	No current use
6	No current use
7	Biodiesel Storage
8	No current use Glycerol / Methanol Storage
9	Glycerol / Methanol Storage
10	No current use
11	Methanol Storage
12	Methanol Storage (recovered in process - day tank)
13	Biodiesel Storage
14	Soy Oil Storage Liquid Animal Fat Storage
15	Future Formaldehyde Storage

06/22/08

Chesapeake Custom Chemical
Ridgeway VA
Storage Tank Key

<u>Tank #</u>	<u>Contents</u>
1	Crude Glycerin
2	No Current Use
3	Crude Glycerin
4	Crude Glycerin
5	No Current Use
6	No Current Use
7	Biodiesel
8	Glycerin / Methanol
9	Glycerin / Methanol
10	No Current Use
11	Methanol
12	Methanol
13	Biodiesel
14	Triglyceride
15	No Current Use